

## **REMARKS**

Reconsideration of the application is respectfully requested.

### **Claim objections**

Claims 1, 20 and 30 are objected to because of minor informalities. Those claims are being amended as suggested in the Office Action. Accordingly, the objections are believed to be overcome.

### **Claim rejections – 35 U.S.C. §101**

Claims 20-29 stand rejected under 35 U.S.C. §101 as allegedly being directed to non-statutory subject matter. Without conceding to the propriety of the rejection, claim 20 is being amended as suggested in the Office Action. As the Office Action notes, support for the amendment can be found at least on page 7, lines 12-13 of the originally submitted specification. Accordingly, the rejection is believed to be overcome.

### **Claims rejection under 35 U.S.C. §103**

Claims 1-30 stand rejected under 35 U.S.C. §103(a) as allegedly being unpatentable over U.S. Patent No. 6,477,702 to Saxe et al. (“Saxe”) in view of “Access Rights Analysis for Java”, an IBM Research Report published October 2001 to Koved et al. (“Koved”), and further in view of U.S. Patent Publication No. 2002/0129343 A1 to Pinter (“Pinter”).

Contrary to the allegations in the Office Action, the cited references do not disclose or suggest at least, “automatically applying a set of rules to said program graphs, including at least performing

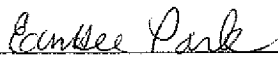
a reachability analysis for at least removing one or more edges to reduce reachability,” claimed in independent claim 1. The Office Action appears to be citing Saxe as allegedly disclosing the program graphs element and Pinter for allegedly disclosing the “reachability analysis” element. Applicant respectfully disagrees. First, Saxe does not disclose or suggest “program graphs.” Rather, Saxe as understood by applicant discloses deriving a formula from the source code and converting that formula into an E-graph. See, for example, Saxe’s Fig. 9 that shows source code, formula and E-graph of that formula. On the other hand, claim 1 recites that program graphs represent runtime characteristics of software code, and for example, as claimed in dependent claims 7 and 8, they can be control analysis graphs and data flow analysis graphs of the software code. Saxe as understood by applicant does not disclose or suggest such program graphs. Further, Pinter does not disclose or suggest performing a reachability analysis for at least removing one or more edges to reduce reachability. That is, Pinter appears to build reachability graph to represent references between live variable and objects generated in allocation statements (Pinter, Fig. 4, item 46). Pinter considers an object to be “alive” as long as it is reachable from some runtime data area via a chain of references, for garbage collection purposes. Pinter, however, does not disclose or suggest to “performing a reachability analysis for at least removing one or more edges to reduce reachability”, for example, in “automatically applying a set of rules to said program graphs” to determine violation of programming practices.

In addition, independent claims 1, 20 and 30 are being amended to further recite, “said runtime characteristics modeled using at least program deployment and configuration information” to further clarify what is being claimed. Support for the amendment can be found at least on page 7 lines 28-29, and page 8, lines 28-29 of the originally submitted specification. It is believed that the cited references do not disclose or suggest that additional element.

For at least the above reasons, independent claim 1 is believed to be unobvious over the cited references. Independent claims 20 and 30 also recite the similar elements, and therefore, the same foregoing reasons apply to those claims. The pending dependent claims also, at least by virtue of their dependencies, are believed to be unobvious over the cited references for at least the same foregoing reasons.

This communication is believed to be fully responsive to the Office Action and every effort has been made to place the application in condition for allowance. A favorable Office Action is hereby earnestly solicited. If the Examiner believes a telephone conference might expedite prosecution of this case, it is respectfully requested that the Examiner call applicant's attorney at (516) 742-4343.

Respectfully submitted,

  
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